

WHAT IS CLAIMED IS:

1. A wireless Local Area Network (LAN) antenna,  
comprising:

5 a radiation electrode with a predetermined area for  
determining at least one transmission/reception frequency band  
of the antenna;

a matching electrode having at least one open stub; and

a feeding electrode having a feeding point formed at an  
10 arbitrary position of the feeding electrode to receive a  
current, with a first end connected to the radiation electrode  
and a second end connected to the matching electrode.

2. The wireless LAN antenna according to claim 1, further  
15 comprising at least one slot for dividing the radiation  
electrode into two or more regions to form current paths  
connected in parallel based on the feeding electrode.

3. The wireless LAN antenna according to claim 1, wherein  
20 impedance matching thereof is adjusted by adjusting a length  
of the open stub of the matching electrode.

4. The wireless LAN antenna according to claim 1, wherein  
the wireless LAN antenna is designed so that a resonance  
25 frequency and impedance matching thereof is adjusted by

adjusting a position of the feeding point on the feeding electrode.

5        5. The wireless LAN antenna according to claim 1, wherein the feeding electrode has the feeding point and a ground point thereon.

10       6. The wireless LAN antenna according to claim 1, wherein the matching electrode having the open stub is formed in an inverted or reversed L shape.

15       7. The wireless LAN antenna according to claim 1, wherein the matching electrode having the open stub is formed in a bar shape.

15       8. The wireless LAN antenna according to claim 1, wherein the matching electrode has two inverted or reversed L-shaped open stubs connected in parallel to the feeding electrode.

20       9. An inverted F wireless Local Area Network (LAN) antenna, comprising:

        a radiation electrode with a predetermined area for determining at least one transmission/reception frequency band of the antenna;

25       a matching electrode having at least one open stub; and

a feeding electrode having a feeding point formed at an arbitrary position of the feeding electrode to receive a current, and a ground point connected to ground, with a first end connected to the radiation electrode and a second end  
5 connected to the matching electrode.

10. A wireless Local Area Network (LAN) antenna, comprising:

a hexahedral dielectric block;

10 a radiation electrode formed on a top surface of the dielectric block to have a predetermined area and to determine at least one transmission/reception frequency band of the antenna;

a matching electrode formed on a front surface of the  
15 dielectric block in an inverted or reversed L shape; and

a feeding electrode formed on back and bottom surfaces of the dielectric block, and provided with a feeding point on the feeding electrode formed on the bottom surface of the dielectric block, with a first end connected to the radiation  
20 electrode and a second end connected to the matching electrode.

11. A wireless Local Area Network (LAN) card, comprising:

a printed circuit board for mounting a plurality of  
25 semiconductor chips and devices to process RF LAN signals; and

first and second antennas each designed so that a radiation electrode with a predetermined area for determining at least one transmission/reception frequency band of each antenna is printed on a top surface of a hexahedral dielectric block, a matching electrode having at least one open stub is printed on a front surface of the dielectric block, and a feeding electrode having a first end connected to the radiation electrode and a second end connected to the matching electrode is printed on back and bottom surfaces of the dielectric block, the first and second antennas being mounted on the printed circuit board to be perpendicularly arranged; and

wherein impedance matching of the first and second antennas can be adjusted by adjusting the feeding points on the feeding electrodes when the first and second antennas are mounted on the printed circuit board.

12. A wireless Local Area Network (LAN) card, comprising:  
a printed circuit board for mounting a plurality of semiconductor chips and devices to process RF LAN signals;

an antenna support member fixed to a predetermined position of the printed circuit board being spaced apart from the printed circuit board by a certain height; and

first and second antennas each comprising a radiation electrode with a predetermined area for determining at least

one transmission/reception frequency band of the antenna, a matching electrode provided with at least one open stub, and a feeding electrode provided with a first end connected to the radiation electrode, a second end connected to the matching electrode, and a feeding point formed at an arbitrary position of the feeding electrode to receive a current, the radiation electrodes of the first and second antennas being supported by the antenna support member to be perpendicular to each other, and feeding electrodes thereof being soldered at predetermined positions of the printed circuit board; and

wherein impedance matching of the first and second antennas can be adjusted by adjusting the feeding points on the feeding electrodes when the first and second antennas are mounted on the printed circuit board.